

ALL NIGHT ENERGY™

Formula 210108-01

VEGETARIAN • ALL NATURAL • NON-GMO • PLANT
DERIVED • BSE-FREE • CRUELTY FREE • SOY FREE •
DAIRY FREE • GLUTEN FREE • CGMP • NSF • FDA

Vitamin B₂ (Riboflavin)	2.6mg/serving	200 %DV
Vitamin B₃ (Niacin)	16mg/serving	200 %DV
Vitamin B₆ (Pyridoxine HCl)	3.4mg/serving	200 %DV
Vitamin B₉ (Folate)	800µg/serving	200 %DV
Vitamin B₁₂ (Cyanocobalamin)	4.8µg/serving	200 %DV

B vitamins play crucial roles in energy production and cellular metabolism. They convert proteins, fats and carbohydrates into energy as well as into adenosine triphosphate (ATP) which supplies energy to the cells. Some are precursors to cofactors, such as nicotinamide adenine dinucleotide (NAD), that is responsible for metabolism and energy production and acts as a vasodilator to increase blood flow and oxygenation. Additionally, the combination of vitamin and ingredients in this formula have been shown to significantly increase both alertness and performance.

[Lindschinger M, Tatzber F, Schimetta W et al.](#) A Randomized Pilot Trial to Evaluate the Bioavailability of Natural versus Synthetic Vitamin B Complexes in Healthy Humans and Their Effects on Homocysteine, Oxidative Stress, and Antioxidant Levels. *Oxid Med Cell Longev.* 2019. 12;2019:6082613.

[Powers H.](#) Riboflavin (vitamin B-2) and health. *Am J Clin Nutr.* 2003 77(6):1352-60.

[Pirinen E, Auranen M, Khan N et al.](#) Niacin Cures Systemic NAD⁺ Deficiency and Improves Muscle Performance in Adult-Onset Mitochondrial Myopathy. *Cell Metab.* 2020. 31(6):1078-1090.

[Yang Y, Sauve A.](#) NAD(+) metabolism: Bioenergetics, signaling and manipulation for therapy. *Biochim Biophys Acta.* 2016. 1864(12):1787-1800.

[Meyer-Ficca M, Kirkland J.](#) Niacin. *Adv Nutr.* 2016. 16;7(3):556-8.

[Ivy J, Kammer L, Ding Z, et al.](#) Improved cycling time-trial performance after ingestion of a caffeine energy drink. *Int J Sport Nutr Exerc Metab.* 2009. 19(1):61-78.

[Mets A, Ketzler S, Blom C et al.](#) Positive effects of Red Bull® Energy Drink on driving performance during prolonged driving. *Psychopharmacology (Berl).* 2011. 214(3):737-45.

Caffeine: 4-8mg/kg *caffeine significantly improved energy and alertness, exercise duration and performance. Additionally, the combination of ingredients in this formula have been shown to significantly increase both alertness and performance.*

Mg/Serving: 230

[Acheson K, Zahorska-Markiewicz B, Pittet P et al.](#) Caffeine and coffee: their influence on metabolic rate and substrate utilization in normal weight and obese individuals. *Am J Clin Nutr.* 1980. 33(5):989-97.

[Hodgson A, Randell R, Jeukendrup A.](#) The metabolic and performance effects of caffeine compared to coffee during endurance exercise. *PLoS One.* 2013;8(4):e59561.

[Desbrow B, Biddulph C, Devlin B et al.](#) The effects of different doses of caffeine on endurance cycling time trial performance. *J Sports Sci.* 2012. 30(2):115-20.

[Mielgo-Ayuso J, Marques-Jiménez D, Refoyo I et al.](#) Effect of Caffeine Supplementation on Sports Performance Based on Differences Between Sexes: A Systematic Review. *Nutrients.* 2019. 11(10):2313.

[Woolf K, Bidwell W, Carlson A.](#) The effect of caffeine as an ergogenic aid in anaerobic exercise. *Int J Sport Nutr Exerc Metab.* 2008. 18(4):412-29.

[Ivy J, Kammer L, Ding Z, et al.](#) Improved cycling time-trial performance after ingestion of a caffeine energy drink. *Int J Sport Nutr Exerc Metab.* 2009. 19(1):61-78.

[Mets A, Ketzler S, Blom C et al.](#) Positive effects of Red Bull® Energy Drink on driving performance during prolonged driving. *Psychopharmacology (Berl).* 2011. 214(3):737-45.

Taurine: *Acute taurine supplementation increased time to exhaustion & performance.*

Mg/Serving: 96

[Page L, Jeffries O, Waldron M.](#) Acute taurine supplementation enhances thermoregulation and endurance cycling performance in the heat. *Eur J Sport Sci.* 2019. 19(8):1101-1109.

[Bals Shaw T, Bampouras T, Barry T et al.](#) The effect of acute taurine ingestion on 3-km running performance in trained middle-distance runners. *Amino Acids.* 2013. 44(2):555-61.

[Waldron M, Patterson S, Jeffries O.](#) Oral taurine improves critical power and severe-intensity exercise tolerance. *Amino Acids.* 2019. 51(10-12):1433-1441.

[Waldron M, Patterson S, Tallent J et al.](#) The Effects of an Oral Taurine Dose and Supplementation Period on Endurance Exercise Performance in Humans: A Meta-Analysis. *Sports Med.* 2018. 48(5):1247-1253.

D-Glucuronolactone: *Glucuronolactone (DGL) has been shown to be effective at increasing energy levels and improving alertness. Additionally, the combination of ingredients in this formula have been shown to significantly increase both alertness and performance.*

Mg/Serving: 24

[Tamura S, Tomizawa S, Tsutsumi S et al.](#) Metabolism of glucuronic acid in fatigue due to physical exercise. *Jpn J Pharmacol.* 1966. 16(2):138-56.
[Tamura S, Tsutsumi S, Ito H et al.](#) Effects of glucuronolactone and the other carbohydrates on the biochemical changes produced in the living body of rats by hard exercise. *Jpn J Pharmacol.* 1968. 18(1):30-8.
[Hiatt, H.](#) Studies of ribose metabolism. VI. Pathways of ribose synthesis in man. *J Clin Invest.* 1958. 37(10):1461-1464.
[Ivy J, Kammer L, Ding Z, et al.](#) Improved cycling time-trial performance after ingestion of a caffeine energy drink. *Int J Sport Nutr Exerc Metab.* 2009. 19(1):61-78.
[Mets A, Ketzler S, Blom C et al.](#) Positive effects of Red Bull® Energy Drink on driving performance during prolonged driving. *Psychopharmacology (Berl).* 2011. 214(3):737-45

N-Acetyl L-Tyrosine (NALT): *NALT is a more soluble form of tyrosine that increases stress tolerance. It is an essential for the production of several neurotransmitters, including epinephrine, norepinephrine, and dopamine.*

Mg/Serving: 12

[Fischer F, Ristow M.](#) Endogenous metabolites promote stress resistance through induction of mitohormesis. *EMBO Rep.* 2020. 21(5):e50340.
[Jung Y, Earnest C, Koozehchian M et al.](#) Effects of acute ingestion of a pre-workout dietary supplement with and without *p*-synephrine on resting energy expenditure, cognitive function and exercise performance. *J Int Soc Sports Nutr.* 2017. 14:3.
[Tumilty L, Davison G, Beckmann M et al.](#) Oral tyrosine supplementation improves exercise capacity in the heat. *Eur J Appl Physiol.* 2011. 111(12):2941-50.
[O'Brien C, Mahoney C, Tharion W et al.](#) Dietary tyrosine benefits cognitive and psychomotor performance during body cooling. *Physiol Behav.* 2007. 90(2-3):301-7.

D,L-Phenylalanine (DLPA): *Phenylalanine is a precursor for tyrosine, dopamine, norepinephrine (noradrenaline), epinephrine (adrenaline) and the CNS stimulant Phenethylamine.*

Mg/Serving: 12

[Sabelli H, Mosnaim A, Vazquez A et al.](#) Biochemical plasticity of synaptic transmission: a critical review of Dale's Principle. *Biol Psychiatry.* 1976. 11(4):481-524.
[Wimalasena K.](#) Vesicular monoamine transporters: structure-function, pharmacology, and medicinal chemistry. *Med Res Rev.* 2011. 31(4):483-519.
[Miller M.](#) The emerging role of trace amine-associated receptor 1 in the functional regulation of monoamine transporters and dopaminergic activity. *J Neurochem.* 2011. 116(2):164-76.